

Article

Photocatalytic Degradation of Carbofuran in Water Using Laser-Treated TiO₂: Parameters Influence Study, Cyto- and Phytotoxicity Assessment

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Waters ACQUITY UPLC system with PDA detector and BEH C18 column (100 mm × 2.1 mm, 1.7 μm) as a stationary phase was used for chromatographic separation of reaction mixtures taken from photoreactor after certain irradiation times (0–150 min). All analyses were performed using the gradient condition (Table S1) with a mobile phase consisting of solvent A (0.1 wt% formic acid in water) and solvent B (0.1 wt% formic acid in acetonitrile) at a constant flow rate of 0.25 mL/min. The 3D data were recorded in the wavelength range from 210 to 350 nm, while 2D chromatograms were recorded at 275 and 280 nm. The run time was 7 min, and the injection volume was 5 μL. CBF retention time was 4.3 min.

Table S1. Gradient condition for UPLC separation of CBF reaction solutions obtained during the photocatalytic degradation process.

Time (min)	% B
0	40
4.5	77
5.5	97
5.6	40
7.0	40